

Ethnic and ethical challenges in treatment planning: dealing with diversity in the 21st century

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Our increasingly diverse society demands great sensitivity and flexibility to accommodate the complex self-understandings of peoples within the multicultural milieu in which we practice. It is certainly the rare orthodontist who believes he or she has biased assumptions when dealing with patients of differing ethnicities. We are trained in our residencies to operate using long-established norms and values to provide appropriate treatment for everyone. Our profession also demands that we base our plan of action upon established orthodontic guidelines. However, these guidelines are not always appropriate in every situation. Errors in communication, planning, and execution may develop despite orthodontists being aware of treatment values for multiple ethnic groups. How could this be? This essay reviews common misunderstandings about race and ethnicity involving orthodontic treatment, including basic strategies for avoiding misconceptions and pitfalls. This includes thinking of our patients as having a distribution of many traits with multiple genealogies and a significant crossover of features.

When I first began to practice, I was certain I was not prejudiced when it came to making treatment planning choices for people of differing ethnicities. As a young man taking a state Specialty Board Examination, I was presented with the records of an Asian male to establish a treatment plan. The records presented moderate crowding but with upright and non-proclined anterior teeth. Being aware that many Asians exhibit a fairly full dentition, I tried to demonstrate my new skills to produce a non-extraction plan, moving the anteriors to a comfortably protrusive position within the parameters established for this ethnicity's norm. My plan was rejected by the examiner with incredulity and disbelief. "What is wrong with you?! This is a routine four bicuspid extraction case!" He flourished the post-treatment records and placed them on the table, lecturing further: "Listen! These people now live in our state and want to look like everyone else!" I was mortified. The case was beautiful! After muttering

some platitudes, I managed to pass the examination. However, I resolved that that this would never happen to my own patients as I believed I *knew* what the appropriate treatment should have been. A few months later I had my opportunity. An Asian professor brought in his son for care. It was a nearly identical clinical situation. When I presented a non-extraction visual treatment objective illustrating both hard and soft tissue projections, the professor stared hard at my outline and said... "You know, we live here now. I really would like him to look like everyone else." Oh! Was the state examiner correct in my previous admonishment?

This dilemma highlights a conflict in which obeying one established principle would result in transgressing another. The parents apparently wished their son to appear more dentofacially like his peers of the larger culture instead of their own! The situation presented an ethical paradox; an event in which adherence to one central principle results in another central value system being overwritten or modified.

My experience forced me to realize how complex this situation really was, presenting a myriad of considerations. These considerations included human biology ("racial typing"), perceived ethnicity by *both* practitioner and patient, and how sociological aspects of ethnicity within the context of an increasingly heterogeneous culture interact. How may we communicate our fundamental knowledge of orthodontics in order to best be of service to our patients in a non-biased fashion without seeming to be *overly preoccupied* with ethnic distinctions?

Certainly, anatomical variability can exist between different populations of peoples. In our era, the orthodontist must be aware of these differences, no matter if they exist to a greater or lesser degree. To be ignorant of these differences may unknowingly foster an inherent practitioner bias known as *ethnocentrism*. This internalized bias is often extremely hard to be aware of as we examine the world with eyes long used to peering out of our own skulls, using the perceptions of a lifetime. It takes great effort not to be inadvertently prejudiced. The state board examiner was convinced his treatment of an Asian to Caucasian norms was an appropriate and excellent treatment choice, and at the

time I also acknowledged that the results looked quite good to me...*but from a Caucasian perspective!*

As practitioners we must be aware of certain distinct ethnic dental and skeletal traits, since being knowledgeable often allows for wiser and speedier treatment choices. These may include distinctions as to whether or not a patient requires extraction, orthognathic correction, or perhaps even a cheiloplasty. Works other than this commentary enumerate physical distinctions of differing ethnic groups, including such factors as: convexity, incisal angulation, dental and soft tissue contouring and protrusion, skeletal vertical dimensions, inherent orientation to Class II or III malocclusions, etc. (See references below).

Certainly, the U.S. population contains the entire range of ordinary human physical variation. "Race," as that concept is usually employed within U.S. culture, refers to the assumption of a series of discrete, physically homogeneous populations. However, physical and socio-cultural anthropological data, as well as modern sociology, make it clear that *race* has no substantiated physical reality. There is a set of *socially* constructed categories to which the term "race," or sometimes "race/ethnicity," is applied. Suffice it to say that we take the term "race," or any of its common substitutes as referring to socio-cultural realities that, in spite of their lack of scientific rigor, are still meaningful to large portions of the population. "Race" is now an outmoded construct, as racial classifications are based upon a very limited number of characteristic traits. Most races may share multiple genealogies with significant crossover. This means a "typical" trait often seen as a characteristic of one specific population is often seen in others as well. This is especially true where modern peoples marry and ethnic boundaries and traits become blurred. "Ethnicity" is a more modern terminology than race, and is often defined in terms of shared heritage. If a people wish to be identified with a particular group, then as professionals we should respect this self-definition.

The "*individual normal*" describes the infinite variety of faces acceptable in a particular group within a normal distribution. This is further complicated by *the clinical perception* that we usually operate in a set of values within half a standard deviation, and not the typical biological standard or normal distribution of two standard deviations (Ricketts, 1989). Our examination for Board Certification certainly implies that *ideal* orthodontic results exist which should be a serious goal. This perception tends to shape our thinking so that only a narrow range of norms or standards may be acceptable. This would express a mean curve with a low variance and a high kurtosis. Peck and Peck (1970) illustrated that racial differences within a

"sociologic population" might well produce *double or triple standards* as to what is the proper choice for an anatomical feature such as facial convexity. Although classically understood races do not exist as discrete biological entities, it is also the case that the human population *does* exhibit a series of patterned biological variations. At issue here are the discrete groupings implied by "race/ethnicity" as opposed to the multimodal, continuous distribution implied by "patterned biological variation." A continuous population becomes significant when we consider the indistinct boundaries between any two modal sub-populations. Nothing here is meant to imply a single set of rules for treatment within a specific population. Rather, we wish to focus on a set of guidelines for making orthodontic decisions. These general principles can only be deduced from a set of discrete instances in which specific decisions need to be made. One may conclude that this physical and ethical dilemma is now far too complicated to allow one to presume an ideal for different ethnic types. The ultimate choice as to what is "appropriate" resides with the patient or parents and his/her perceived ethnicity.

While Europeans, Latinos, Asians and Africans all show broad spectrums of distinct types that can be very roughly defined by a set of core physical traits, the variations from the mode are considerable. The practitioner must be concerned about a tendency to clinically stereotype. It is also the case that the socio-cultural pressures of life in the United States have produced a certain level of ethnic distinctiveness in each group. It is this "racialized ethnicity" that forms the core of our concern and must be handled gingerly. Here are some simple guidelines to help avoid bias and be culturally perceptive:

Be aware: While many of us clinicians may not have advanced training in sociology or anthropology, we are trained in treating the very essence of biology: variability. If different ethnic types are treated all the same, with the anatomic/measurable values given for only one population type, a serious error is made. Population differences do occur between groups and should be considered in context.

Never presume: We should not presume what the "appropriate" ethnic or racial classification is based upon our own perceptions, as these may be incorrect. Instead of thinking of "race" as inviolable, we should instead think of our patients as having a distribution of many traits. It is reasonable and expected to offer treatment *choices* based upon the practitioner's knowledge of anatomical ethnic variability. This can often be done with modeling using the latest 3-D computer programs, Visual Treatment Objectives, drawn illustrations or wax set-ups of a proposed alteration of the dentition and face. Existing cephalometric programs (developed by Ricketts), have long

given numerical and illustrative norms for the majority of ethnicities to help patients select an appropriate plan of treatment.

All choices made to either enhance or alter an inherent ethnic typology should be made by the patient in a climate free of inherent bias, but with the full understanding of why, what, and how such treatment planning will affect appearance. Such changes may be life altering.

In summary:

- Ask your patients what they wish. Don't assume.
- Use computer programs which model treatment choices.
- Take the concept of ethnic variability seriously, but not *too* literally.
- Variations exist. Paint with broad strokes!

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